

Dynex

User Manual for TE685AVR, TE975AVR/USB

IMPORTANT SAFETY INSTRUCTIONS (SAVE THESE INSTRUCTIONS)

This manual contains important safety instructions. Please read and follow all instructions carefully before and during installation and operation of unit. Read this manual thoroughly before attempting to install or operate.

CAUTION! To prevent the risk of fire or electric shock, install in a temperature and humidity controlled indoor area, free of conductive contaminants.

CAUTION! To reduce the risk of electric shock, do not remove the cover secured by star shaped screws. No user serviceable parts are inside except for the battery. Refer servicing to qualified personnel.

CAUTION! The battery can energize hazardous live parts inside even when the AC input power is disconnected.

CAUTION! UPS must be connected to an AC power outlet with fuse or circuit breaker protection. Do not plug into an outlet that is not grounded. If you need to de-energize this equipment, turn off and unplug the unit.

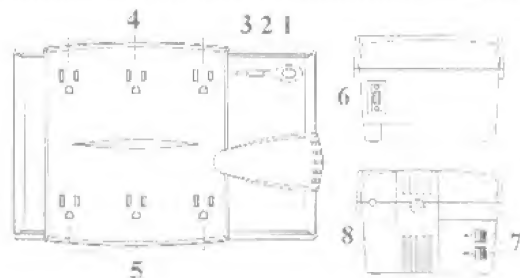
CAUTION! To avoid electrical shock, turn off the unit and unplug it from the AC power source before servicing the battery or installing a computer component.

DO NOT USE FOR MEDICAL OR LIFE SUPPORT EQUIPMENT! Dynex does not sell products for life support or medical applications or for use in any circumstance that would affect operation or safety of any medical for life support or medical applications or patient care.

DO NOT USE WITH OR NEAR AQUARIUMS! To reduce the risk of fire, do not use with or near aquariums. Condensation from the aquarium can cause the unit to short out.

CAUTION! To reduce the risk of fire, connect only to a circuit provided with 20 amperes maximum branch circuit overcurrent protection in accordance with the National Electrical Code, ANSI/NFPA 70.

DESCRIPTION



1. Power Switch: Can be used as the master on/off switch for computer equipment connected to the battery power supplied outlets.

2. Power On Indicator: This LED is illuminated when the utility condition is normal and the UPS outlets are providing "clean power," free of any surges or spikes.

3. Electrical Wiring Fault Indicator: This LED indicator will illuminate to warn the user that a wiring problem exists, such as bad ground, missed ground, or reversed wiring. If this is illuminated, user is advised to disconnect all electrical equipment from the outlet and have an electrician check the outlet to insure proper ground.

4. Battery/ Surge Outlets: Provides battery-powered/ surge outlets for the connected equipment and insures uninterrupted operation of your equipment during a power failure.

5. Surge Only Outlets: Provides surge protection for non-critical equipment.

6. Serial Port to PC: The UPS communicates its status through the serial connection to the PC.

7. Communication Protection Ports: The communication protection ports are designed to protect standard modem, fax, telephone or network line.

8. Circuit Breaker: Located on the side of the unit, the circuit breaker serves to provide circuit overload and fault protection. Under normal conditions, the circuit breaker is flush with the unit.

HOW TO DETERMINE THE POWER REQUIREMENTS OF YOUR EQUIPMENT

1. Make sure that the total Volt-Amp (VA) requirements of your computer, monitor and peripheral equipment does not exceed 685VA for TE685AVR / 975VA for TE975AVR/USB.

2. Insure that the equipment plugged into the three battery power-supplied outlets does not exceed the UPS unit's rated capacity (685VA/360W for TE685AVR, 975VA/540W for TE975AVR/USB). If rated unit capacities are exceeded, an overload condition may occur and cause the UPS unit to shut down or the circuit breaker to trip.

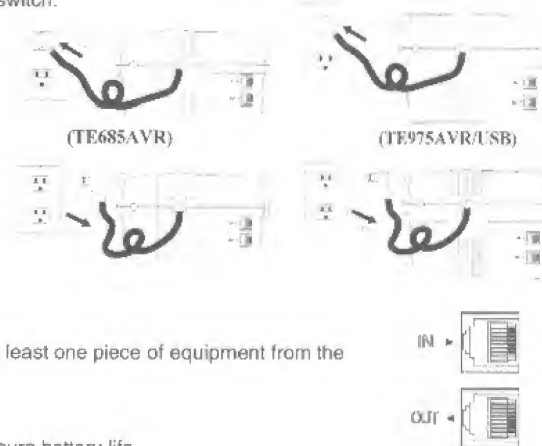
3. If the power requirements of your equipment are listed in units other than Volt-Amps (VA), convert Watts (W) or Amps (A) into VA by doing the calculations below. Note: The below equation only calculates the maximum amount of VA that the equipment can use, not what is typically used by the equipment at any one time. Users should expect usage requirements to be approximately 60% of below value.

4. _____ Watts (W) x 2.0 = _____ VA or _____ Amps (A) x 120 = _____ VA

Add the totals up for all pieces of equipment and multiply this total by .6 to calculate actual requirements. There are many factors that can affect the amount of power that your computer system will require. The total load that you will be placing on the battery-powered outlets should not exceed 80% of the unit's capacity.

HARDWARE INSTALLATION GUIDE

1. Your new UPS may be used immediately upon receipt. However, **recharging the battery for at least four hours** is recommended to insure that the battery's maximum charge capacity is achieved. Charge loss may occur during shipping and storage. To recharge the battery, simply leave the unit plugged into an AC outlet and turn on the power switch.
2. If you wish to use the software, connect the enclosed serial interface cable to the serial port on the UPS and an open serial port on the computer. If you are not going to use the software, you do not need to connect the cable.
3. With the UPS unit off and unplugged, connect your computer and monitor into the battery power supplied outlets. Plug your peripheral equipment (printer, scanner, speakers) into the full-time surge protection outlets. **DO NOT** plug a laser printer, copier, space heater, vacuum or other large electrical device into the UPS. The power demands of these devices will overload and possibly damage the unit.
4. To protect a fax, telephone or modem line, connect a telephone cable from the wall jack outlet to the in jack of the UPS. Connect a telephone cable to the out-jack on the UPS to the modem port of the computer.
5. Plug the UPS into a 2 pole, 3 wire grounding receptacle (wall outlet). Make sure the wall branch outlet is protected by a fuse or circuit breaker and does not service equipment with large electrical demands (e.g. refrigerator, copier, etc...).
6. Depress the power switch to turn the unit on. The power on indicator light will illuminate.
7. If an overload is detected, an audible alarm will sound and the unit will emit one long beep. To correct this, turn the UPS off and unplug at least one piece of equipment from the battery power supplied outlets. Wait 10 seconds. Make sure the circuit breaker is depressed and then turn on the UPS.
8. To maintain optimal battery charge, leave the UPS plugged into an AC outlet at all times.
9. To store your UPS for an extended period, cover it and store with the battery fully charged. Recharge the battery every three months to insure battery life.



REPLACING THE BATTERY

Please call the number in this manual for information on battery replacement. The order numbers for the battery are as follows:

BA-TE685AVR for TE685AVR, **BA-TE975AVR/USB** for TE975AVR/USB

CAUTION! Read and follow the **IMPORTANT SAFETY INSTRUCTIONS** before servicing the battery. **Service the battery under the supervision of personnel knowledgeable of batteries and their precautions.**

CAUTION! Use only the specified type of battery.

CAUTION! The battery may present risk of electrical shock. Do not dispose of battery in a fire, as it may explode. Follow all local ordinances regarding proper disposal of batteries.

CAUTION! Do not open or mutilate the batteries. Released electrolyte is harmful to skin and eyes and may be toxic.

CAUTION! A battery can present a high risk of short circuit current and electrical shock.

Take the following precautions before replacing the battery:

1. Remove all watches, rings or other metal objects.
2. Only use tools with insulated handles.
3. Do not lay tools or metal parts on top of battery or any terminals.
4. Wear rubber gloves and boots.

Determine if the battery is inadvertently grounded. If inadvertently grounded, remove source of ground. **CONTACT WITH GROUNDED BATTERY CAN RESULT IN ELECTRICAL SHOCK!** The likelihood of such shock will be reduced if such grounds are removed during installation and maintenance (applicable to a UPS and a remote battery supply not having a grounded circuit).

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TO REPLACE THE BATTERY

1. Turn off and unplug all connected equipment.
2. Turn the UPS off and unplug it from the AC power source.
3. Turn the UPS upside down.
4. Remove the 6 retaining screws.
5. Turn the UPS right side up and remove the cover.
6. Remove the battery from the compartment.
7. Disconnect the battery wires from the battery.
8. Install the replacement battery by connecting the red wire to the positive (+) terminal of the battery and connecting the black wire to the negative (-) terminal of the battery.
9. Slide the battery back into the compartment.
10. Replace the outlet cover and the 6 retaining screws.
11. Recharge the unit for 4 – 8 hours to ensure the UPS performs expected runtime.

REMINDER: Batteries are consider **HAZARDOUS WASTE** and must be disposed of properly. Contact your local government for more information about proper disposal and recycling of batteries.

DEFINITIONS FOR ILLUMINATED LED INDICATORS

				CONDITION
Power ON	Wiring Fault	Circuit Breaker	Alarm	
On	Off	Set	Off	Normal or AVR is maintaining a consistent power
Off	On/Off	Set	Two Beeps	Utility Failure- the UPS is providing power to battery power-supplied outlets from its battery.
Off	On/Off	Set	Rapid Beeps	Utility Failure- The UPS is providing battery power. Rapid beeps indicate the unit will run out of power shortly.
Off	Off	Up	Two Beeps or Rapid Beeps	System Overload- Occurs when connected equipment exceeds the rating of unit. Turn the UPS off, unplug at least one piece of equipment, wait 10 seconds, reset the circuit breaker and turn the unit on.
Off	On/Off	Set	Long Beep	Battery Overload- Occurs when connected equipment exceeds the rating of battery outlets of the unit. Turn the UPS off, unplug at least one piece of equipment from battery outlets, wait 10 seconds, reset the circuit breaker and turn the unit on.
				Electrical Wiring Fault- Indicates a wiring problem with the AC outlet such as bad ground, miss ground,

TROUBLESHOOTING

Problem	Possible Cause	Solution
Full-time surge protection outlets stop providing power to equipment.	Circuit breaker has tripped due to an overload.	Turn the UPS off and unplug at least one piece of equipment. Wait 10 seconds, reset the circuit breaker by depressing the button, and then turn on the UPS.
The UPS does not perform expected	Battery not fully charged.	Recharge the battery by leaving the UPS plugged in.
	Battery is slightly worn out.	Contact Dynex about replacement batteries at Richfield, Minnesota + Phone: (800)305-2204
The UPS will not turn on.	The on/off switch is designed to prevent damage by rapidly turning it off and on.	Turn the UPS off. Wait 10 seconds and then turn the UPS on.
	The unit is not connected to an AC outlet.	The unit must be connected to a 110/120v 60Hz outlet.
	The battery is worn out.	Contact Dynex about replacement batteries at Richfield, Minnesota + Phone: (800)305-2204
	Mechanical problem.	Contact Dynex about replacement batteries at Richfield, Minnesota + Phone: (800)305-2204
Power Management is inactive (all icons are gray).	The serial cable is not connected.	Connect the serial cable to the UPS unit and an open serial port on the back of the computer. You must use the cable that came with the unit.
	The serial cable is connected to the wrong port.	Check the back of the computer for an additional serial port. Move the cable to this port.
	The unit is not providing battery	Shutdown your computer and turn the UPS off. Wait 10 seconds and turn the UPS back on. This

On/Off	On	Set	None	Electrical Wiring Fault- Indicates a wiring problem with the AC outlet such as bad ground, miss ground, or reversed wiring. User is advised to disconnect all electrical equipment from the outlet and have an electrician check the outlet to insure proper wiring.
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The unit is not providing battery power.	Shutdown your computer and turn the UPS off. Wait 10 seconds and turn the UPS back on. This should reset the unit.
The serial cable is not the cable that was provided with the unit.	You must use the cable that was included with the unit for the software and the unit to be able to communicate.

SPECIFICATION

General	Model	TE685AVR	TE975AVR/USB
	Capacity	685VA (360W)	975VA (540W)
Input	Frequency	57Hz to 63Hz	
	Voltage Range	92V – 140V	
UPS-Output	On Battery Output Voltage Regulation	120 Vac \pm 5%	
	Transfer Time	4ms typical, including detection time	
	On Battery Output Wave Form	Simulated Sine Wave Form	
	Overload Protection	On Utility: Circuit Breaker, On Battery: Internal Current Limiting	
Battery	Battery Type	Sealed, Maintenance-free lead acid battery	
	Number of Batteries	12Vdc/ 7.2AH	12Vdc/ 4.5AH x 2
	Recharge Time	4 to 8 hours from total discharge	
Physical	Maximum Dimensions (cm)	26.6 x 17.5 x 9.7	26.6 x 17.5 x 12.2
	UPS Outlets	3 Battery-powered and full-time surge protection	
		6 full-time surge protection	
Interface	Communication	RS-232 with Plug and Play interface / USB Adapter Win 98, Win NT, Win 2000, Win ME, Win XP	
	LED Indicators	Power On, Electrical Wiring Fault	
Management	Self-Test	Yes	
	Auto-Charge	Yes	
	Auto-Restart	Yes	
	USB	Optional	Yes

Software Installation Guide/ Dynex Limited Warranty and Connected Equipment Guarantee

For details of Software Installation Guide and Dynex Limited Warranty and Connected Equipment Guarantee, please refer to the enclosed software floppy diskette of **Power Manager** as a separate document for TE685AVR and TE975AVR/USB.